



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/766,943

01/22/2001

John K. Gallant

RIC00016

3388

25537 7590 02/09/2012

VERIZON  
PATENT MANAGEMENT GROUP  
1320 North Court House Road  
9th Floor  
ARLINGTON, VA 22201-2909

EXAMINER

CROMPTON, CHRISTOPHER R

ART UNIT

PAPER NUMBER

2463

NOTIFICATION DATE

DELIVERY MODE

02/09/2012

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@verizon.com

<b>Office Action Summary</b>	<b>Application No.</b> 09/766,943	<b>Applicant(s)</b> GALLANT ET AL.	
	<b>Examiner</b> CHRISTOPHER R. CROMPTON	<b>Art Unit</b> 2463	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12/13/2011.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9,12-26,31-39,42-50,55,56 and 58-65 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9,12-26,31-39,42-50,55,56 and 58-65 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

Art Unit: 2463

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Objections***

1. Claim 31 is objected to because of the following informalities: Claim 31 states “determine determine”. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buyukkoc et al (US 6,463,062) [hereafter referred to as R1] in view of Hemmady (US 2002/0126674 A1) [hereafter referred to as R2] in view of Spiegel et al (US 5,649,108) [hereafter referred to as R3].

**For claim 1**, R1 discloses

Art Unit: 2463

receiving, at a policy server, information associated with a first signaling message and a second signaling message (column 19 lines 25-30 node sends information to RSD),

where the first signaling message and the second signaling message are associated with a calling party (Fig 9. user 902) and a called party (Fig. 9 user 904), where an ingress switch in an

Asynchronous Transfer Mode (ATM) network is associated with the calling party (Fig 9 ATM switch 922) and an egress switch in the ATM network is associated with the called party (Fig 9 ATM switch 924);

identifying, by the policy server and based on the first signaling message and the second signaling message, a policy associated with the calling party (column 18 lines 25-45 class of service for the call would be a policy associated with a calling party);

determining, by the policy server, whether the policy is satisfied with respect to the first signaling message and the second signaling message (see FIG. 8, step 840; see FIG. 10, steps 1035,1040; see col. 17, line 25 to col. 18, line 45; see col. 13, line 1-7, 64 to col. 15, line 50; see col. 10, line 10-20; see col. 11, line 1-16; see col. 13, line 1-6, 29-67; Tables VII-IX; according to a new call in the RSD database tables, deciding/determining a specific rule/policy to trigger/apply to received call's priority of traffic),

and where determining whether the policy is satisfied comprises:

determining a virtual path between the ingress switch and the egress switch, where the virtual path includes the network port in the ATM network (column 20 lines 60-67 switch 922 gets virtual path between it and switch 924 column 22 lines 10-25 switches communicate via switches),

Art Unit: 2463

identifying an available forward bandwidth from the ingress switch to the egress switch along the virtual path (column 14 lines 35-45 green means plenty of capacity left),

identifying an available reverse bandwidth from the egress switch to the ingress switch along the virtual path (column 14 lines 35-45 green means plenty of capacity left),

causing, by the policy server and in response to determining that the policy is satisfied for the first signaling message, a communication establishing a connection path, related to the first signaling message, to be established between the ingress switch and the egress switch using the virtual path (see FIG. 8, step 850, 860, 870; see FIG. 10, steps 1045, 1050, 1055; see col. 14, line 1-65; see col. 19, line 35-50; see col. 21, line 40-50; setting/establishing the call/connection when load/congestion/priority/bandwidth/routes conditions/status (i.e. connectivity information, threshold, quality of service, capacity, or status of loading/congestion) are met/fulfilled for each policy/rule status/feature identified/recognized by the user/subscriber policy),

calculating a first requested bandwidth associated with the first signaling message, where the first requested bandwidth includes a first forward requested bandwidth from the ingress switch to the egress switch along the virtual path and a first reverse requested bandwidth from the egress switch to the ingress switch along the virtual path (column 17 lines 30-35),

calculating a second requested bandwidth associated with the second signaling message, where the second requested bandwidth includes a second forward requested bandwidth from the ingress switch to the egress switch along the virtual path and a second reverse requested bandwidth from the egress switch to the ingress switch along the virtual path (column 17 lines 30-35)

Art Unit: 2463

R1 does not explicitly disclose identifying, based on the policy, a network port, in the ATM network, that the calling party is authorized to use, where the network port is associated with a maximum burst size limit,

calculating a first burst size associated with the first signaling message and a second burst size associated with the second signaling message,

determining that the policy is satisfied for the first signaling message in response to determining that:

the available forward bandwidth exceeds the first forward requested bandwidth,

the available reverse bandwidth exceeds the first reverse requested bandwidth, and

the first burst size does not exceed the maximum burst size limit,

determining that the policy is not satisfied for the second signaling message in response to

determining an occurrence of at least one of:

a total forward requested bandwidth, including the first forward requested bandwidth and the second forward requested bandwidth, exceeds the available forward bandwidth,

a total reverse requested bandwidth, including the first reverse requested bandwidth and the second reverse requested bandwidth, exceeds the available reverse bandwidth, or

a total burst size, including the first burst size and the second burst size, exceeds the maximum burst size limit, and

forwarding, from the policy server to the ingress switch, a connection failure notice related to the second signaling message in response to determining that the policy is not satisfied for the second signaling message.

Art Unit: 2463

R2 discloses identifying, based on the policy (paragraph 0066 if ATC is known), a network port, in the ATM network, that the calling party is authorized to use, where the network port is associated with a maximum burst size limit (paragraph 0066 ATM switch controller selects a port from available ports based on maximum burst size), identifying an available forward bandwidth from the ingress switch to the egress switch along the virtual path (paragraph 0067 after a port is selected, switch determines if bandwidth available on the port is greater than the equivalent bandwidth), identifying an available reverse bandwidth from the egress switch to the ingress switch along the virtual path (paragraph 0067 after a port is selected, switch determines if bandwidth available on the port is greater than the equivalent bandwidth), calculating a first requested bandwidth associated with the first signaling message (paragraph 0066 calculates bandwidth), where the first requested bandwidth includes a first forward requested bandwidth from the ingress switch to the egress switch along the virtual path and a first reverse requested bandwidth from the egress switch to the ingress switch along the virtual path (paragraph 0067 after a port is selected, switch determines if bandwidth available on the port is greater than the equivalent bandwidth), calculating a first burst size associated with the first signaling message and a second burst size associated with the second signaling message (paragraph 0066), determining that the policy is satisfied for the first signaling message in response to determining that:

the available forward bandwidth exceeds the first forward requested bandwidth (paragraph 0067 bandwidth available is greater than equivalent bandwidth),

Art Unit: 2463

the available reverse bandwidth exceeds the first reverse requested bandwidth (paragraph 0067 bandwidth available is greater than equivalent bandwidth), and

the first burst size does not exceed the maximum burst size limit (paragraph 0066 maximum burst size),

calculating a second requested bandwidth associated with the second signaling message, where the second requested bandwidth includes a second forward requested bandwidth from the ingress switch to the egress switch along the virtual path and a second reverse requested bandwidth from the egress switch to the ingress switch along the virtual path (paragraph 0067 after a port is selected, switch determines if bandwidth available on the port is greater than the equivalent bandwidth), and

determining that the policy is not satisfied for the second signaling message in response to determining an occurrence of at least one of (paragraph 0067):

a total forward requested bandwidth, including the first forward requested bandwidth and the second forward requested bandwidth, exceeds the available forward bandwidth (paragraph 0067 if bandwidth available is less then bandwidth rejects the switched virtual circuit request),

a total reverse requested bandwidth, including the first reverse requested bandwidth and the second reverse requested bandwidth, exceeds the available reverse bandwidth (paragraph 0067 if bandwidth available is less then bandwidth rejects the switched virtual circuit request), or

a total burst size, including the first burst size and the second burst size, exceeds the maximum burst size limit, and

a connection failure notice related to the second signaling message in response to determining that the policy is not satisfied for the second signaling message (paragraph 0067 if bandwidth



Art Unit: 2463

available is less than bandwidth rejects the switched virtual circuit request).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of R1 with the modifications of determining if a policy is satisfied taught by R2. The rationale to combine would be to have an efficient decision making process regarding switch connection requests.

The previous combination does not explicitly disclose forwarding, from the policy server to the ingress switch, a connection failure notice.

R3 discloses forwarding, from the policy server to the ingress switch, a connection failure notice (column 13 lines 7-23 connection request is rejected due to not satisfying the QOS requirements and the rejecting node returns a NACK).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the previous combination with the further modification of returning a connection failure notice taught by R3. The rationale to combine would be to notify the node the connection has failed so the node can precede instead of waiting on a response which would increase node efficiency.

**For claim 2**, R1 discloses where at least one of the first signaling message or the second

Art Unit: 2463

signaling message comprises a Connect message (Fig 8 step 850, a message which contains a route for new call is connect message in ATM col. 19 lines 19-25, 40-45; col. 20 lines 39-45).

**For claims 3 and 5**, R1 discloses where the signaling message comprises an Add Party or setup message (see FIG. 8, steps 820,830; a message which contains a new call requesting for a route is the SETUP/adding party message in ATM signaling/SS7; see col. 19, line 19-31; see col. 20, line 46-52; see col. 20, line 39-45; see col. 21, line 19-25).

**For claim 12**, R2 discloses determining that a requested class of service, associated with the first signaling message, is permitted for the network port (paragraph 0066).

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over R1 in view of R2 in view of R3 and further in view of Noake (US006751222B1).

**Regarding claim 4**, R1 does not explicitly disclose a release message.

However, a release message is well know in the ATM signaling/SS7 in order to disconnect the call.

In particular, Noake teaches a release message (see FIG. 4, RELEASE message; see col. 8, line 9-39).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a release message, as taught by Noake in the previously combined system, so that it would make effective use of a band and the respective apparatus by

Art Unit: 2463

transmitting connection information, and by sending/receiving a release message it will notify to stop the cell assembling and disassembling processes; see Noake col. 2, line 55-64; col. 8, line 19-24.

4. Claims 6, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over R1 in view of R2 in view of R3, and further in view of Christie'656 (US006690656B1).

**Regarding claims 6, 8, and 9, R1 discloses**

determining whether an address associated with the calling party (see col. 3, line 5-65; see col. 7, line 50 to col. 16, line 65; determining/checking the call/connection of user/subscriber), and

determining that the condition is satisfied for the address validation feature (see col. 3, line 5-65; see col. 7, line 50 to col. 16, line 65; determining that status/condition (i.e. green, yellow, red) is met/satisfied for the address checking/verification).

R1 does not explicitly disclose *"address, associated with the calling party, is determined to be within a range of authorized addresses"*.

However, a source address validation/screening is well known in the ATM signaling/SS7.

In particular, Christie'656 teaches determining whether an address associated with the calling party/called party is within a range of authorized addresses (see col. 7, line 5-55; see col. 15, line 30-60; determining whether the caller/called address with within a range of authorized numbers/IDs/ANIs; note that a group or IDs/numbers/addresses/ANIs stored in the access table is within an accessible range), and

Art Unit: 2463

determining that the condition is satisfied for the source address validation feature when the address, associated with the calling party/called party, is determined to be within the range of authorized addresses (see col. 7, line 5-55; see col. 15, line 30-60; determining the status/condition is met/accepted/satisfied for the caller ID/number/addresses/ANI associated with the caller is determined to be within range of authorized numbers/IDs/ANIs; note that a group or IDs/numbers/addresses/ANIs stored in the access table is within an accessible range).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to *“address, associated with the calling/called party, is determined to be within the range of authorized addresses”*., as taught by Christie'656 in the previously combined system of, so that it would can validate the calls and generate a billing record; see Christie'656 col. 3, line 12-22; col. 7, line 39-45.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over R1 in view of R2 in view of R3 and further in view of Farris (US 6154445A).

**Regarding claim 7**, R2 discloses that a network port can have limiting features (paragraph 0066).

R2 does not explicitly disclose “a maximum call attempt rate limit” is one of the features.

However, having a maximum call attempt rate limit/threshold is well known in the signaling/SS7. In particular, Farris teaches a maximum call attempt rate limit (see col. 14, line 1-12; see col. 11, line 5-17; acceptable/maximum specified rate of call attempts).

Art Unit: 2463

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide “acceptable/maximum specified rate of call attempts”, as taught by Farris in the previously combined system, so that it would can detect the predetermined events and/or imminence of predetermined events, and then blocking or controlling those events from their incipency; see Farris col. 14, line 1-6.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over R1 in view of R2 in view of R3 and Basso (US 6633539B1).

**Regarding claim 13**, R1 discloses determining that the policy condition is satisfied for the first signaling message is further in response to determining that establishing the communication associated with the first signaling message does not result in a quantity of communications that does not exceed a particular maximum number of calls (see col. 14, line 10-7 to col. 18, line 45; see col. 19, line 25- to see col. 21, line 30; Table VII, VIII; determining that the condition/status (i.e. red/yellow) for the acceptable/maximum call load/limit/bandwidth when the call is not higher/exceed the accepted/maximum calls)

R1 does not explicitly disclose a maximum number of *concurrent calls*.

However, ATM network having a maximum concurrent call limit/threshed for call admission control (CAC) is well known in the art. In particular, Basso teaches a maximum concurrent call limit feature (see col. 4, line 25-35; maximum allowed/limit number of concurrent connection/call).

Art Unit: 2463

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide limiting the “*concurrent*” number of calls, as taught by Basso in the previously combined system, so that it would control concurrent connections/calls to provide efficient protection against signaling congestion; see Basso col. 2, line 35-45.

7. Claims 14-16, 18, 20-21, 31, 39, 42, 43, 45, 47, 48, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buyukkoc et al (US 6.463.062) [hereafter referred to as R1] in view of Hemmady (US 2002/0126674 A1) [hereafter referred to as R2].

**For claims 14 and 39**, R1 discloses (column 22 lines 12-40 discloses computer readable medium) a memory to store entries that relate subscribers to policies associated with a plurality of policy features (column 10 lines 47-51 routing status database), where the policy server is included in an Asynchronous Transfer Mode (ATM) network to establish communications between a calling party (Figure 9) and a called party (Figure 9), the ATM network comprising: an ATM switch serving a customer premises equipment (CPE) operated by the calling party (Fig 9 ATM switch 922), and a signaling intercept processor associated with the ATM switch, the signaling intercept processor to intercept a first signaling message and a second signaling message related to the calling party and the called party (column 17 lines 30-35 passed from switch to RSD); and a processor to: receive, from the signaling intercept processor, information associated with the first signaling

Art Unit: 2463

message and the second signaling message (column 17 lines 30-35 passed to RSD from switch), determine a policy, of the policies in the memory, for the calling party (column 18 lines 25-45 class of service for the call would be a policy associated with a calling party), identify one or more policy features associated with the policy for the calling party (see FIG. 8, step 840; see FIG. 10, steps 1035,1040; see col. 17, line 25 to col. 18, line 45; see col. 13, line 1-7, 64 to col. 15, line 50; see col. 10, line 10-20; see col. 11, line 1-16; see col. 13, line 1-6, 29-67; Tables VII-IX; according to a new call in the RSD database tables, deciding/determining a specific rule/policy to trigger/apply to received call's priority of traffic), and determine whether at least one policy condition associated with the one or more policy features for the calling party, is satisfied with respect to the first signaling message and the second signaling message (see FIG. 8, step 840; see FIG. 10, steps 1035,1040; see col. 17, line 25 to col. 18, line 45; see col. 13, line 1-7, 64 to col. 15, line 50; see col. 10, line 10-20; see col. 11, line 1-16; see col. 13, line 1-6, 29-67; Tables VII-IX; according to a new call in the RSD database tables, deciding/determining a specific rule/policy to trigger/apply to received call's priority of traffic), where a first connection path is established when the at least one policy condition is satisfied with respect to the first signaling message, where a second connection path is established when the at least one policy condition is satisfied with respect to the second signaling message (see FIG. 8, step 850, 860, 870; see FIG. 10, steps 1045, 1050, 1055; see col. 14, line 1-65; see col. 19, line 35-50; see col. 21, line 40-50; setting/establishing the call/connection when load/congestion/priority/bandwidth/routes conditions/status (i.e. connectivity information,

Art Unit: 2463

threshold, quality of service, capacity, or status of loading/congestion) are met/fulfilled for each policy/rule status/feature identified/recognized by the user/subscriber policy),

identify an available forward bandwidth between the calling party and the called party (column 14 lines 35-45),

identify an available reverse bandwidth between the called party and the calling party (column 14 lines 35-45),

calculate a first requested bandwidth associated with the first signaling message, where the first requested bandwidth includes a first forward requested bandwidth between the calling party and the called party and a first reverse requested bandwidth between the called party and the calling party (column 17 lines 30-35),

calculate a second requested bandwidth associated with the second signaling message, where the second requested bandwidth includes a second forward requested bandwidth between the calling party and the called party and a second reverse requested bandwidth between the called party and the calling party (column 17 lines 30-35)

upon determining that the policy condition associated with each policy feature of one or more policy feature identified by the policy for the calling party is satisfied with respect to the signaling message (see FIG. 8, step 840; see FIG. 10, steps 1035, 1040; see col. 13, line 1-7; 64 to col. 14, line 67; see col. 19, line 25-40; see col. 21, line 19-30; determines/decides whether rule/policy condition/state (e.g. yellow, Red, and green), associated/related with connectively information, threshold, quality of service, capacity, or status of loading/congestion, identified/recognized by the rule/policy associated with a call/connection for the user/subscriber is met/fulfilled according to a new call/connection (i.e. load/congestion/priority



Art Unit: 2463

/bandwidth/routes/quality-of-service states/conditions)), causing a connection path to be established between the calling party and the call party (see FIG. 8, step 850, 860, 870; see FIG. 10, steps 1045, 1050, 1055; see col. 14, line 1-65; see col. 19, line 35-50; see col. 21, line 40-50; setting/establishing the call/connection when load/congestion/priority/bandwidth/routes conditions/status (i.e. connectively information, threshold, quality of service, capacity, or status of loading/congestion) are met/fulfilled for each policy/rule status/feature identified/recognized by the user/subscriber policy).

R1 does not explicitly disclose

where the first connection path and the second connection path include a particular network port authorized for use by the calling party, the particular network port being associated with a maximum burst size limit, and

where, when determining whether the at least one policy condition is satisfied,

the processor is to:

identify an available forward bandwidth between the calling party and the called party via the particular network port,

identify an available reverse bandwidth between the called party and the calling party via the particular network port,

determine a first burst size associated with the first signaling message and a second burst size associated with the second signaling message,

determine that the at least one policy condition is satisfied for the first signaling message in response to determining that the available forward bandwidth exceeds the first forward requested

Art Unit: 2463

bandwidth, the available reverse bandwidth exceeds the first reverse requested bandwidth, and the first burst size does not exceed the maximum burst size limit,

determine that the at least one policy condition is not satisfied for the second signaling message in response to determining an occurrence of at least one of:

a total forward requested bandwidth, including the first forward requested bandwidth and the second forward requested bandwidth, exceeds the available forward bandwidth,

a total reverse requested bandwidth, including the first reverse requested bandwidth and the second reverse requested bandwidth, exceeds the available reverse bandwidth, or

a total burst size, including the first burst size and the second burst size, exceeds the maximum burst size limit.

R2 discloses where the first connection path and the second connection path include a particular network port authorized for use by the calling party (paragraph 0066 ATM switch controller selects a port from available ports based on maximum burst size), the particular network port being associated with a maximum burst size limit (paragraph 0066 ATM switch controller selects a port from available ports based on maximum burst size), and

where, when determining whether the at least one policy condition is satisfied,

the processor is to:

identify an available forward bandwidth between the calling party and the called party via the particular network port (paragraph 0067 after a port is selected, switch determines if bandwidth available on the port is greater than the equivalent bandwidth),

identify an available reverse bandwidth between the called party and the calling party via the

Art Unit: 2463

particular network port (paragraph 0067 after a port is selected, switch determines if bandwidth available on the port is greater than the equivalent bandwidth),

determine a first burst size associated with the first signaling message and a second burst size associated with the second signaling message (paragraph 0066),

calculate a first requested bandwidth associated with the first signaling message (paragraph 0066 calculates bandwidth), where the first requested bandwidth includes a first forward requested

bandwidth between the calling party and the called party and a first reverse requested bandwidth

between the called party and the calling party (paragraph 0067 after a port is selected, switch determines if bandwidth available on the port is greater than the equivalent bandwidth),

determine that the at least one policy condition is satisfied for the first signaling message

(paragraph 0067) in response to determining that the available forward bandwidth exceeds the first forward requested bandwidth (paragraph 0067 bandwidth available is greater than equivalent bandwidth),

the available reverse bandwidth exceeds the first reverse requested bandwidth (paragraph 0067 bandwidth available is greater than equivalent bandwidth),

and the first burst size does not exceed the maximum burst size limit (paragraph 0066 maximum burst size),

calculate a second requested bandwidth associated with the second signaling message, where the second requested bandwidth includes a second forward requested bandwidth between the calling party and the called party and a second reverse requested bandwidth between the called party and the calling party (paragraph 0067 after a port is selected, switch determines if bandwidth available on the port is greater than the equivalent bandwidth),

Art Unit: 2463

determine that the at least one policy condition is not satisfied for the second signaling message in response to determining an occurrence of at least one of (paragraph 0067):

a total forward requested bandwidth, including the first forward requested bandwidth and the second forward requested bandwidth, exceeds the available forward bandwidth (paragraph 0067

if bandwidth available is less then bandwidth rejects the switched virtual circuit request),

a total reverse requested bandwidth, including the first reverse requested bandwidth and the second reverse requested bandwidth, exceeds the available reverse bandwidth (paragraph 0067 if

bandwidth available is less then bandwidth rejects the switched virtual circuit request), or

a total burst size, including the first burst size and the second burst size, exceeds the maximum burst size limit.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of R1 with the modifications of determining if a policy is satisfied taught by R2. The rationale to combine would be to have an efficient decision making process regarding switch connection requests.

**For claims 15 and 42,** R1 discloses where at least one of the first signaling message or the second signaling message comprises a Connect message (Fig 8 step 850, a message which contains a route for new call is connect message in ATM col. 19 lines 19-25, 40-45; col. 20 lines 39-45).

Art Unit: 2463

**For claims 16, 18, 43, and 45,** R1 discloses where the signaling message comprises an Add Party or setup message (see FIG. 8, steps 820,830; a message which contains a new call requesting for a route is the SETUP/adding party message in ATM signaling/SS7; see col. 19, line 19-31; see col. 20, line 46-52; see col. 20, line 39-45; see col. 21, line 19-25).

**For claims 20 and 47,** R1 discloses the particular network port is a customer logical port (see col. 4, line 20-40; see col. 5, line 20-26; edge node/switch provides logical connection/port (e.g. VPI port) between customer and the network). R2 discloses the particular network port is a customer logical port (paragraph 0066 port on switch paragraph 0067 for a virtual circuit request)

**For claims 21 and 48,** R1 discloses the particular network port is a full physical port (see FIG. 9, physical trunk/port 932; see col. 20, line 1-10). R2 discloses the particular network port is a full physical port (paragraph 0066 ports on switch).

**For claim 31,** R2 discloses determine determine that the at least one condition is satisfied for the first signaling message when a requested class of service, associated with the first signaling message, is permitted for the particular network port (paragraph 0066).

**Regarding claim 58,** R1 discloses a service class selection feature for specifying a service class with respect to a network port used by said party (see col. 10, line 50-55; see col. 18, line 26-45;

Art Unit: 2463

see FIG. 9, trunk/port 932; see col. 20, line 1-10; selecting a class-of-service for a port/link/trunk/circuit used by the call). R2 discloses

R2 discloses determine that the at least one condition is satisfied for the first signaling message when a requested class of service, associated with the first signaling message, is permitted for the particular network port (paragraph 0066).

8. Claims 17 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over R1 in view of R2 and further in view of Noake (US006751222B1).

**Regarding claims 17 and 44**, R1 does not explicitly disclose a release message.

However, a release message is well know in the ATM signaling/SS7 in order to disconnect the call.

In particular, Noake teaches a release message (see FIG. 4, RELEASE message; see col. 8, line 9-39).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a release message, as taught by Noake in the previously combined system, so that it would make effective use of a band and the respective apparatus by transmitting connection information, and by sending/receiving a release message it will notify to stop the cell assembling and disassembling processes; see Noake col. 2, line 55-64; col. 8, line 19-24.

Art Unit: 2463

9. Claims 19, 23, 25, 46, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over R1 in view of R2, and further in view of Christie'656 (US006690656B1).

**Regarding claims 19, 23, 25, 46, and 50,** R1 discloses

determining whether an address associated with the calling party (see col. 3, line 5-65; see col. 7, line 50 to col. 16, line 65; determining/checking the call/connection of user/subscriber), and

determining that the condition is satisfied for the address validation feature (see col. 3, line 5-65; see col. 7, line 50 to col. 16, line 65; determining that status/condition (i.e. green, yellow, red) is met/satisfied for the address checking/verification).

R1 does not explicitly disclose *“address, associated with the calling party, is determined to be within a range of authorized addresses”*.

However, a source address validation/screening is well known in the ATM signaling/SS7.

In particular, Christie'656 teaches determining whether an address associated with the calling party/called party is within a range of authorized addresses (see col. 7, line 5-55; see col. 15, line 30-60; determining whether the caller/called address with within a range of authorized numbers/IDs/ANIs; note that a group or IDs/numbers/addresses/ANIs stored in the access table is within an accessible range), and

determining that the condition is satisfied for the source address validation feature when the address, associated with the calling party/called party, is determined to be within the range of authorized addresses (see col. 7, line 5-55; see col. 15, line 30-60; determining the status/condition is met/accepted/satisfied for the caller ID/number/addresses/ANI associated with

Art Unit: 2463

the caller is determined to be within range of authorized numbers/IDs/ANIs; note that a group or IDs/numbers/addresses/ANIs stored in the access table is within an accessible range).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to “*address, associated with the calling/called party, is determined to be within the range of authorized addresses*”., as taught by Christie'656 in the previously combined system of, so that it would can validate the calls and generate a billing record; see Christie'656 col. 3, line 12-22; col. 7, line 39-45.

10. Claims 22 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over R1 in view of R2 and further in view of Farris (US 6154445A).

**Regarding claims 22 and 49**, R1 discloses set up messages (see FIG. 8, steps 820,830; a message which contains a new call requesting for a route is the SETUP/adding party message in ATM signaling/SS7; see col. 19, line 19-31; see col. 20, line 46-52; see col. 20, line 39-45; see col. 21, line 19-25).

R2 discloses that a network port can have limiting features (paragraph 0066).

R2 does not explicitly disclose “a maximum call attempt rate limit” is one of the features.

However, having a maximum call attempt rate limit/threshold is well known in the signaling/SS7. In particular, Farris teaches a maximum call attempt rate limit (see col. 14, line 1-12; see col. 11, line 5-17; acceptable/maximum specified rate of call attempts).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide “acceptable/maximum specified rate of call attempts”, as



Art Unit: 2463

taught by Farris for Setup messages for a network port in the previously combined system, so that it would can detect the predetermined events and/or imminence of predetermined events, and then blocking or controlling those events from their incipency; see Farris col. 14, line 1-6.

11. Claims 24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over R1 in view of R2 in view of Christie'656 (US006690656B1), and further in view of Gai (US 6167445A).

**Regarding claims 24 and 26,**

Neither R1 nor Christie'656 explicitly discloses “*a group of subscribers*”. However, Gai teaches a policy server (see FIG. 4, policy server 322) comprising the particular policy feature (see FIG. 4, Policy Rule generation engine 414, policy translator 410, and device-specific filtering entity; see col. 13, line 61 to col. 14, line 5) including at least one of a destination screening feature for a group of subscribers to which the party belongs (see col. 14, line 1-15, 56 to col. 15, line 55; applying destination addressing policy rule to a group of users (see FIG. 7A, marking users, admin users, executive users, etc.) where a specific user (see FIG. 7A, John Doe) belongs; see col. see col. 14, line 10-18).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide “*a group of subscribers*”, as taught by Gai in the previously combined system, so that it would ability to allocate network services and resources by applying high-level quality of service policies; see Gai col. 5, line 45-55.

Art Unit: 2463

12. Claims 32-37 and 59-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over R1 in view of R2, and further in view of Kilkki (US 6041039A).

**Regarding claims 32-37 and 59-64**, the previously combined system discloses service class as described above in claim 31 and 58. R1 further discloses constant bit rate service (CBR) and variable bit rate service (VBR) (see col. 1, line 50-60).

The previous combination does not explicitly disclose, “*real-time VBR service, non-real time VBR, unspecified bit-rate (UBR), and available bit-rate (ABR)*”.

However, the ATM class of services a real-time VBR service, non-real time VBR, unspecified bit-rate (UBR), and available bit-rate (ABR) is well known in ATM standard. In particular, Kilkki teaches CBR, VBR, a real-time VBR service, non-real time VBR, unspecified bit-rate (UBR), and available bit-rate (ABR) (see col. 1, line 54-67).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide quality of service class defined by ATM standard, as taught by Kilkki in the previously combined system, so that it would provide a capability to manage increases in network load, supporting both real-time and non-real time application, and offering, in certain circumstances, a guaranteed level service quality; see Kilkki col. 1, line 44-53, also by using the ATM standard services, it will enable the service provider to interoperate between multi-vendor networks.

13. Claims 38 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over R1 in view of R2 and further in view of Basso (US 6633539B1).

**Regarding claims 38 and 65**, R1 discloses determining that the policy condition is satisfied for the first signaling message is further in response to determining that establishing the communication associated with the first signaling message does not result in a quantity of communications that does not exceed a particular maximum number of calls (see col. 14, line 10-7 to col. 18, line 45; see col. 19, line 25- to see col. 21, line 30; Table VII, VIII; determining that the condition/status (i.e. red/yellow) for the acceptable/maximum call load/limit/bandwidth when the call is not higher/exceed the accepted/maximum calls)

R1 does not explicitly disclose a maximum number of *concurrent calls*.

However, ATM network having a maximum concurrent call limit/threshed for call admission control (CAC) is well known in the art. In particular, Basso teaches a maximum concurrent call limit feature (see col. 4, line 25-35; maximum allowed/limit number of concurrent connection/call).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide limiting the “*concurrent*” number of calls, as taught by Basso in the previously combined system, so that it would control concurrent connections/calls to provide efficient protection against signaling congestion; see Basso col. 2, line 35-45.

14. Claims 55-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over R1 in view of R2, and further in view of Kobayashi (US 5,896,371).

**Regarding claim 55**, R2 discloses a maximum burst size limit (paragraph 0066).

Art Unit: 2463

R2 does not explicitly disclose that this is a quantity of packets per second allowed to be transmitted.

Kobayashi discloses the number of packets per second allowed to be transmitted to said ATM network with respect to said call (see FIG. 6; see col. 12, line 55 to col. 13, line 35; a number of cells per second (i.e. 10Mbps) requested to transmit in each call to ATM network). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the number of packets per second requested to be transmitted, as taught by Kobayashi in the previously combined system. The rationale to combine would be to provide a flow control performed cooperatively by the network and the terminal equipment and call accepted control is simplified; see Kobayashi col. 7, line 46-52; col. 8, line 40-45.

**Regarding claim 56,** R2 discloses a maximum burst size limit (paragraph 0066).

R2 does not explicitly disclose that this is a quantity of packets per second allowed to be received.

Kobayashi discloses the number of packets per second allowed to be received by said party from said ATM network with respect to said call (see FIG. 6; see col. 12, line 55 to col. 13, line 35; a number of cells per second (i.e. 10Mbps) requested to received in each call from ATM network). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the number of packets per second requested to be received, as taught by Kobayashi in the previously combined system. The rationale to combine would be to provide a flow control performed cooperatively by the network and the terminal

Art Unit: 2463

equipment and call accepted control is simplified; see Kobayashi col. 7, line 46-52; col. 8, line 40-45.

### *Conclusion*

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **CHRISTOPHER R. CROMPTON** whose telephone number is (571)270-3678. The examiner can normally be reached on Monday-Thursday 2-5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derrick W. Ferris can be reached on 571-272-3123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2463

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CHRISTOPHER R CROMPTON  
Examiner  
Art Unit 2463

/C. R. C./  
Examiner, Art Unit 2463

/Derrick W Ferris/  
Supervisory Patent Examiner, Art Unit 2463